

PATENT
674543-2001.2REMARKS

Reconsideration and withdrawal of the rejections of the application are respectfully requested in view of the remarks and enclosures herein.

Claims 14-17 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Gomez-Sanchez et al. The rejection is respectfully traversed.

It is respectfully submitted that a two-prong inquiry must be satisfied in order for a Section 102 rejection to stand. First, the prior art reference must contain all of the elements of the claimed invention. See *Lewmar Marine Inc. v. Barient Inc.*, 3 U.S.P.Q.2d 1766 (Fed. Cir. 1987). Second, the prior art must contain an enabling disclosure of the claimed invention. See *Chester v. Miller*, 15 U.S.P.Q.2d 1333, 1336 (Fed. Cir. 1990).

The Office Action states that Gomez-Sanchez teaches that the administration of carbenoxolone will increase blood pressure. The Office Action further states that the pending claims read on the inhibition of a physiological pathway, and that therefore the administration of carbenoxolone as taught by Gomez-Sanchez would inherently inhibit reductase activity of 11- β -hydroxysteroid dehydrogenase 1 (11 β HSD-1). Applicants respectfully disagree.

Rather, Gomez-Sanchez describes the administration of carbenoxolone directly to the brain, which results in an increase in hypertension. This is an observation of the effect of carbenoxolone on the activity now attributed to 11 β -HSD2, which was cloned in 1993-1994, just after the publication of Gomez-Sanchez et al. This finding presupposes a dehydrogenase reaction, not a reductase reaction. It is respectfully submitted that Gomez-Sanchez actually states that carbenoxolone is expected to inhibit the dehydrogenase activity of HSD and thus increase levels of cortisol and corticosterone. This is additionally clear from the abstract: "11 β -HSD inactivates cortisol and corticosterone", which means that inhibiting HSD will lead to activation of the glucocorticoids mentioned, which results in an increase in blood pressure.

The Examiner is respectfully invited to review the declaration filed May 18, 2004, which demonstrates that the knowledge in the art was that 11- β HSD1 was NOT a reductase in neuronal tissue; but rather, that it was a dehydrogenase, see Monder and White, *supra*, Table I. Thus, one following the teachings in the art would NOT inhibit 11- β HSD1 in neuronal tissue to REDUCE intracellular glucocorticoid concentration in neuronal tissue; and, more generally, one following the teachings in the art would NOT inhibit 11- β HSD1 in neuronal tissue to inhibit the REDUCTASE activity of 11- β HSD1 in neuronal tissue.

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Indeed, Gomez-Sanchez actually shows the exact opposite of the present claims. Gomez-Sanchez shows that carbenoxolone appears to inhibit the dehydrogenase activity of HSD. This removes protection of the mineralocorticoid receptor and leads to mineralocorticoid hypertension. Inhibition of the reductase activity, as currently claimed, would have the opposite effect; that is, levels of glucocorticoids would be reduced. Thus, Gomez-Sanchez teaches away from what is claimed.

Furthermore, not only are the teachings of Gomez-Sanchez the exact opposite of that which is claimed in the present application, so too are the explanations offered by the authors. The experiments described in Gomez-Sanchez were slanted towards the detection of the expected result - inhibition of dehydrogenase. As a result, Gomez Sanchez shows that the overall effect was the inhibition of dehydrogenase and that inhibition of the reductase plainly did not occur. This finding is in contrast to what is observed in the examples of the present patent application and to what is presently claimed.

Pursuant to MPEP 2141.02, Applicants respectfully request that the claimed invention be considered as a whole. It is respectfully requested, pursuant to MPEP 2143.03, that all of the recitations of the claims, such as the recitations that the methods are to be performed on an animal in need thereof, and that the methods are for inhibiting the reductase activity of 11- β HSD1 in neuronal tissue and for reducing intracellular glucocorticoid levels in neuronal tissue by inhibiting the reductase activity of 11- β HSD1, be fully considered. That is, the present claims require that the methods be performed on an animal in need thereof; in contrast, the rats in Gomez-Sanchez were not in need of treatment.

Furthermore, pursuant to MPEP 2141.02, the Examiner is also respectfully requested to consider fully the teachings in the art that teach away from the presently claimed invention, especially the teachings in the art that 11- β HSD1 was NOT a reductase in neuronal tissue; but rather, that it was a dehydrogenase, *see* Monder and White, *supra*, Table I, which clearly support the patentability of the instant invention. For example, it is surprising and unexpected that intracellular glucocorticoid levels in neuronal tissue can be reduced by inhibiting the reductase activity of 11- β HSD1 by inhibiting 11- β HSD1; and, it was surprising and unexpected that the reductase activity of 11- β HSD1 in neuronal tissue can be inhibited by inhibiting 11- β HSD1.

Accordingly, in view of the remarks herein, reconsideration and withdrawal of the rejection under 35 U.S.C. §102(b) is respectfully requested.

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If any issue remains as an impediment to allowance, prior to issuance of any paper other than a Notice of Allowance, an interview with the Examiner is respectfully requested, and the Examiner is respectfully requested to contact the undersigned to arrange a mutually convenient time and manner for such an interview.

CONCLUSION

In view of the remarks and enclosures herewith, the application is now in condition for allowance. Consequently, reconsideration and withdrawal of the rejections, and prompt issuance of a notice of allowance, are respectfully requested.

Respectfully submitted,
FROMMER LAWRENCE & HAUG LLP

By: Thomas J. Kowalski by Angela M. Collison
Thomas J. Kowalski
Reg. No. 32,147
Angela M. Collison
Reg. No. 51,107
(212) 588-0800